

AMENDMENTS TO THE CLAIMS

1. *(Currently amended)* A method for viewing a vessel in an image with a three-dimensional volume, comprising the steps of:
 - (a) determining in the view plane of said image a plurality of boundary pairs defining said vessel, wherein points comprising said boundary pairs are at least two voxels apart;
 - (b) determining at least one vessel-intensity for each one of said boundary pairs; and
 - (c) viewing in the projection plane of said image said plurality of boundary pairs and said associated vessel-intensities.
2. *(Original)* The method as set forth in claim 1, further comprising the step of determining and viewing at least one context-intensity in the area surrounding each one of said plurality of boundary pairs.
3. *(Original)* The method as set forth in claim 1, further comprising the step of fine-tuning said boundary pairs and said vessel-intensities.
4. *(Original)* The method as set forth in claim 1, further comprising the step of filtering said boundary pairs.
5. *(Cancelled)*
6. *(Original)* The method as set forth in claim 1, further comprising the step of estimating a boundary pair using neighboring boundary pairs.

7. *(Original)* The method as set forth in claim 1, further comprising the step of including a calcium region located near said boundary pairs in said determination of said boundary pairs.
8. *(Original)* The method as set forth in claim 1, further comprising the step of excluding a bone region located near said boundary pairs from said determination of said boundary pairs.
9. *(Currently amended)* A method for viewing a structure of interest in an image with a three-dimensional volume, comprising the steps of:
 - (a) selecting a start-point and an end-point encompassing said structure of interest in a plane of said image; and
 - (b) for each of a plurality of pixels defined in said plane
 - (i) projecting a line in the view direction of said plane,
 - (ii) determining a boundary pair defining said structure of interest along said line, wherein points comprising said boundary pair are at least two voxels apart,
 - (iii) determining a first intensity for said structure of interest enclosed by said boundary pair,
 - (iv) determining a second intensity for structures surrounded by said boundary pair,
 - (v) re-determining said boundary pair using said first intensity and said second intensity,
 - (vi) re-determining said first intensity for said re-determined boundary pair, and

(vii) assigning said re-determined first intensity and said re-determined boundary pair to said pixel associated with said line.

10. *(Original)* The method as set forth in claim 9, further comprising the step of determining at least one context-intensity in the area surrounding said boundary pair.
11. *(Original)* The method as set forth in claim 9, further comprising the step of filtering said boundary pairs.
12. *(Cancelled)*
13. *(Original)* The method as set forth in claim 9, further comprising the step of estimating a boundary pair using neighboring boundary pairs.
14. *(Original)* The method as set forth in claim 9, further comprising the step of excluding one or more boundary pairs based on a threshold.
15. *(Original)* The method as set forth in claim 9, further comprising the step of estimating a boundary pair using neighboring boundary pairs.
16. *(Original)* The method as set forth in claim 9, further comprising the step of including a calcium region located near said boundary pair in said determination of said boundary pair.

17. (*Original*) The method as set forth in claim 9, further comprising the step of excluding a bone region located near said boundary pair from said determination of said boundary pair.
18. (*Currently amended*) A method of generating a movie of a structure of interest, comprising the steps of:
- (a) defining a plurality of image projection planes;
 - (b) for each one of said projection planes determining a plurality of boundary pairs defining said structure of interest in the view plane associated with said projection plane, wherein points comprising said boundary pairs are at least two voxels apart;
 - (c) determining at least one intensity for said structure of interest associated with each one of said boundary pairs;
 - (d) defining said view of said structure of interest by said plurality of boundary pairs and said associated intensities determined in each of said plurality of projection planes; and
 - (e) sequencing through said plurality of projection planes.
19. (*Original*) The method as set forth in claim 18, further comprising the step of determining and viewing at least one context-intensity in the area surrounding each one of said plurality of boundary pairs.